

Product datasheet for MR229400

Rp2 (NM_001290643) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rp2 (NM_001290643) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Rp2
Synonyms: A1662636; Rp2h
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR229400 representing NM_001290643
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCTGCTGCTTCACTAAGAGGAGGAAGAGTGAAAAGGCTGAGGGAGAGGAGGAGCAGCCCAAGCTGT
 ACAGCTGGGACCAGCGGGAGAAGGTTGATCCAAAAGATTACATGTTTAGTGGACTGAAGGATGAAACAGT
 AGGTCGTTACCTGAAAAGTGGCAGGACAACAATTTGTCATTCAAGACTGTGAGAACTGTAACATCTAT
 ATTTTTGACCACTCAGCTACTATTACCATTGATGACTGCACTAACTGTGAATTTTTTTGGACCAGTGA
 AAGGCAGTGTCTTTTTCCGAAATTGTAGAGATTGCAAGTGCACATTGGCTTGCCAGCAATTCGTGTGAG
 AGACTGTAGAAAGTTGGAAGTCTTTTTGTGCTGTGCTACTCAACCCATTATTGAATCTTCCACAAACATC
 AAGTTTGGCTGTTTTCAATGGTACTACCCTGAATTAGCAGCCCAATTCAAAGATGCAGGCCCTCAGTATCT
 TCAATAACATTTGGAGTCATGTTTCATGATTTTACACCTGTGTCAGGAGAGCTCAACTGGAGCCTTCTTCC
 AGAAAAAGCCGTGGTTCAAGACTATGTTTCTATCCCAATGACTGAAGAATTCAAAGCTGTGCGAATTTCC
 ACAGAAGCCAATAGAAGCATTGTTTCTGTGTCGCGGGTCCAGAGACAGAAGTACAGTGTGAATCATGTC
 TTGTGGTATTATTTGCCGATGATTATACTGCAATGCCAGGAACTAATTGATGAGATGGTTGGTAA
 AGGCTTCTCCCTAGTGCAGACAAAGGAAATGTCAATGAAAAGTGAAGACGCCAAAGGGTTTTCCAGGAA
 AAGGCATCAGATTTTTTACTTCTTAACAAAGGTCCTGTGATTGCCTTGGAAATTAATGGAGATGACG
 CTGTACAAGAATGTCACCTTATTGTAAATGGGATGTTCAACGGGACAAAGATGTTTGTATCAGAAAAGAA
 GGAGACCCATCTGGAGATGTTGATAGCTTCTATAACTTTGCTGAGATCCAGATGGGGATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR229400 representing NM_001290643
Red=Cloning site Green=Tags(s)

MGCCFTKRRKSEKAEGEEEPKLYSWDQREKVPKDYMFSGLKDETVGRLPGKVAGQQFVIQDCENCNIY
 IFDHSATITIDDCNTCVIFLGPVKGSVFFRNCRDCKCTLACQFRVRDCRKLKLVFLCCATQPIIESSTNI
 KFGCFQWYYPELAAQFKDAGLSIFNNIWSHVHDFTPVSGELNWSLLPENAVVQDYVPIPMTEEFKAVRIS
 TEANRSIVPVSRGQRQKYSDESCLVFLFADDDYTTANARKLIDEMVGKGFSLVQTKEMSMKTEDAQRVFAQE
 KASDFLLLLLNKGPVIALEFNGDDAVQECHLIVNGMFNGTKMFVSEKKETASGDVDSFYNF AEIQMGI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001290643

ORF Size: 1041 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001290643.1](#), [NP_001277572.1](#)

RefSeq Size: 1399 bp

RefSeq ORF: 1044 bp

Locus ID: 19889

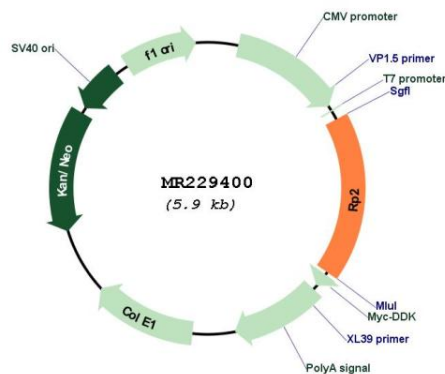
UniProt ID: [Q9EPK2](#)

Cytogenetics: X A1.3

MW: 39.4 kDa

Gene Summary: Acts as a GTPase-activating protein (GAP) involved in trafficking between the Golgi and the ciliary membrane. Involved in localization of proteins, such as NPHP3, to the cilium membrane by inducing hydrolysis of GTP ARL3, leading to the release of UNC119 (or UNC119B). Acts as a GTPase-activating protein (GAP) for tubulin in concert with tubulin-specific chaperone C, but does not enhance tubulin heterodimerization. Acts as guanine nucleotide dissociation inhibitor towards ADP-ribosylation factor-like proteins. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR229400